

10/540971  
JC17 Rec'd PCT/PTO 27 JUN 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*In re* patent application of Whaley et al.

Serial number: unassigned Group Art Unit: unassigned  
Attorney Docket Number: 01640393aa Examiner: unassigned  
Filed: US national stage filed concurrently herewith

For: "***GENE ENCODING RESISTANCE TO ACETOLACTATE SYNTHASE-INHIBITING HERBICIDES***"

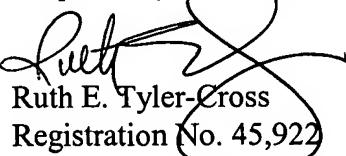
SUBMISSION OF SEQUENCE LISTING AND STATEMENT TO SUPPORT FILING IN  
ACCORDANCE WITH 37 C.F.R. §§ 1.821-1.825

Commissioner for Patents  
PO Box 1450  
Alexandria VA 22313-1450  
Mail Stop SEQUENCE

Dear Sir:

We enclose herein an initial computer readable form (diskette) and a paper copy of the sequence listings for the above-identified US national stage patent application. Also enclosed is a verified statement that the content of the paper and computer readable copies are the same and include no new matter. Applicant respectfully requests amendment of the present application by entry of the Sequence Listing.

Respectfully submitted,

  
Ruth E. Tyler-Cross  
Registration No. 45,922

Whitham, Curtis & Christofferson  
11491 Sunset Hills Road, Suite 340  
Reston, VA 20190  
Tel: 703-787-9400  
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STATEMENT TO SUPPORT FILING AND SUBMISSION IN ACCORDANCE WITH

37 C.F.R. §§ 1.821-1.825

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450  
**Mail Stop SEQUENCE**

Dear Sir:

In connection with a Sequence Listing submitted concurrently herewith, the undersigned states that:

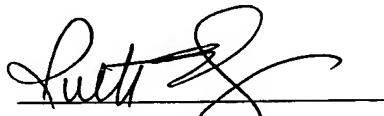
1. the submission, filed herewith in accordance with 37 C.F.R. § 1.821 (g), does not include new matter;
2. the content of the attached paper copy and the attached computer readable copy of the Sequence Listing, submitted in accordance with 37 C.F.R. § 1.821(c) and (e), respectively, are the same; and
3. all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by

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fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

Respectfully submitted,



Ruth E. Tyler-Cross

Reg. No. 45,922

June 22, 2005  
Date

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Sequence listing.ST25.txt  
SEQUENCE LISTING

<110> Whaley, Cory M.  
Wilson, Henry P.  
Westwood, James H.

<120> Gene Encoding Resistance to Acetolactate Synthase-Inhibiting  
Herbicides

<130> 01640393aa

<150> US 60/438,801

<151> 2003-01-09

<150> PCTUS04/00363

<151> 2004-01-09

<160> 8

<170> PatentIn version 3.2

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<213> Amaranthus hybridus

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Sequence listing.ST25.txt

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<212> PRT

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Ser Arg Phe Ser Pro Glu Glu Pro Arg Lys Gly Cys Asp Val Leu Val		
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Glu Ala Leu Glu Arg Glu Gly Val Thr Asp Val Phe Ala Tyr Pro Gly		
50	55	60

Gly Ala Ser Met Glu Ile His Gln Ala Leu Thr Arg Ser Asn Ile Ile			
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Gly Tyr Ala Arg Ala Thr Gly Arg Val Gly Val Cys Ile Ala Thr Ser		
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Gly Pro Gly Ala Thr Asn Leu Val Ser Gly Leu Ala Asp Ala Leu Leu	
Page 2	

## Sequence listing.ST25.txt

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Ile Gly Thr Asp Ala Phe Gln Glu Thr Pro Ile Val Glu Val Thr Arg  
145 150 155 160

Ser Ile Thr Lys His Asn Tyr Leu Val Leu Asp Val Glu Asp Ile Pro  
165 170 175

Arg Ile Val Lys Glu Ala Phe Phe Leu Ala Asn Ser Gly Arg Pro Gly  
180 185 190

Pro Val Leu Ile Asp Ile Pro Lys Asp Ile Gln Gln Gln Leu Val Val  
195 200 205

Pro Asn Trp Glu Gln Pro Ile Lys Leu Gly Gly Tyr Leu Ser Arg Leu  
210 215 220

Pro Lys Pro Thr Tyr Ser Ala Asn Glu Glu Gly Leu Leu Asp Gln Ile  
225 230 235 240

Val Arg Leu Val Gly Glu Ser Lys Arg Pro Val Leu Tyr Thr Gly Gly  
245 250 255

Gly Cys Leu Asn Ser Ser Glu Glu Leu Arg Lys Phe Val Glu Leu Thr  
260 265 270

Gly Ile Pro Val Ala Ser Thr Leu Met Gly Leu Gly Ala Phe Pro Cys  
275 280 285

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290 295 300

Ala Asn Tyr Ala Val Asp Lys Ala Asp Leu Leu Leu Ala Phe Gly Val  
305 310 315 320

Arg Phe Asp Glu Arg Val Thr Gly Lys Leu Glu Ala Phe Ala Ser Arg  
325 330 335

Ala Lys Ile Val His Ile Asp Ile Asp Ser Ala Glu Ile Gly Lys Asn  
340 345 350

Lys Gln Pro His Val Ser Ile Cys Gly Asp Val Lys Val Ala Leu Gln  
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Sequence listing.ST25.txt

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Leu Ser Phe Lys Thr Phe Gly Asp Ala Ile Pro Pro Gln Tyr Ala Ile  
405 410 415

Gln val Leu Asp Glu Leu Thr Lys Gly Asp Ala Val Val Ser Thr Gly  
420 425 430

Val Gly Gln His Gln Met Trp Ala Ala Gln Phe Tyr Lys Tyr Arg Asn  
435 440 445

Pro Arg Gln Trp Leu Thr Ser Gly Gly Leu Gly Ala Met Gly Phe Gly  
450 455 460

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465 470 475 480

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485 490 495

Ala Thr Ile Arg Val Glu Asn Leu Pro Val Lys Ile Met Leu Leu Asn  
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515 520 525

Ala Asn Arg Ala His Thr Tyr Leu Gly Asn Pro Ser Asn Ser Ser Glu  
530 535 540

Ile Phe Pro Asp Met Leu Lys Phe Ala Glu Ala Cys Asp Ile Pro Ala  
545 550 555 560

Ala Arg Val Thr Lys Val Ser Asp Leu Arg Ala Ala Ile Gln Thr Met  
565 570 575

Leu Asp Thr Pro Gly Pro Tyr Leu Leu Asp Val Ile Val Pro His Gln  
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Sequence listing.ST25.txt

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cctttgagtt ttaagacttt cggggatgca attcctccgc aatacgccat tcaggttctt 1260  
gacgagttga cgaagggcga tgcgggttga agtactgggt ttggcagca ccaaattgtgg 1320  
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Sequence listing.ST25.txt  
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35 40 45

Val Glu Ala Leu Glu Arg Glu Gly Val Thr Asp Val Phe Ala Tyr Pro  
50 55 60

Gly Gly Ala Ser Met Glu Ile His Gln Ala Leu Thr Arg Ser Asn Ile  
65 70 75 80

Ile Arg Asn Val Leu Pro Arg His Glu Gln Gly Gly Val Phe Ala Ala  
85 90 95

Glu Gly Tyr Ala Arg Ala Thr Gly Arg Val Gly Val Cys Ile Ala Thr  
100 105 110

Ser Gly Pro Gly Ala Thr Asn Leu Val Ser Gly Leu Ala Asp Ala Leu  
115 120 125

Asp Asp Ser Val Pro Leu Val Ala Ile Thr Gly Gln Val Pro Arg Arg  
130 135 140

Met Ile Gly Thr Asp Ala Phe Gln Glu Thr Pro Ile Val Glu Val Thr  
145 150 155 160

Arg Ser Ile Thr Lys His Asn Tyr Leu Val Leu Asp Val Glu Asp Ile  
165 170 175

Pro Arg Ile Val Lys Glu Ala Phe Phe Leu Ala Asn Ser Gly Arg Pro  
Page 6

**Sequence listing ST25.txt**

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 Val Pro Asn Trp Glu Gln Pro Ile Lys Leu Gly Gly Tyr Leu Ser Arg  
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 Leu Pro Lys Pro Thr Tyr Ser Ala Asn Glu Glu Gly Leu Leu Asp Gln  
 225 230 235 240  
 Ile Val Arg Leu Val Gly Glu Ser Lys Arg Pro Val Leu Tyr Thr Gly  
 245 250 255  
 Gly Gly Cys Leu Asn Ser Ser Glu Glu Leu Arg Lys Phe Val Glu Leu  
 260 265 270  
 Thr Gly Ile Pro Val Ala Ser Thr Leu Met Gly Leu Gly Ala Phe Pro  
 275 280 285  
 Cys Thr Asp Asp Leu Ser Leu His Met Leu Gly Met His Gly Thr Val  
 290 295 300  
 Tyr Ala Asn Tyr Ala Val Asp Lys Ala Asp Leu Leu Leu Ala Phe Gly  
 305 310 315 320  
 Val Arg Phe Asp Asp Arg Val Thr Gly Lys Leu Glu Ala Phe Ala Ser  
 325 330 335  
 Arg Ala Lys Ile Val His Ile Asp Ile Asp Ser Ala Glu Ile Gly Lys  
 340 345 350  
 Asn Lys Gln Pro His Val Ser Ile Cys Gly Asp Val Lys Val Ala Leu  
 355 360 365  
 Gln Gly Leu Asn Lys Ile Leu Glu Ser Arg Lys Gly Lys Val Lys Leu  
 370 375 380  
 Asp Phe Ser Asn Trp Arg Glu Glu Leu Asn Glu Gln Lys Lys Lys Phe  
 385 390 395 400  
 Pro Leu Ser Phe Lys Thr Phe Gly Asp Ala Ile Pro Pro Gln Tyr Ala  
 405 410 415  
 Ile Gln Val Leu Asp Glu Leu Thr Lys Gly Asp Ala Val Val Ser Thr  
 420 425 430

Sequence listing.ST25.txt

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485 490 495

Leu Ala Thr Ile Arg Val Glu Asn Leu Pro Val Lys Ile Met Leu Leu  
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Asn Asn Gln His Leu Gly Met Val Val Gln Trp Glu Asp Arg Phe Tyr  
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Lys Ala Asn Arg Ala His Thr Tyr Leu Gly Asn Pro Ser Asn Ser Ser  
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Glu Ile Phe Pro Asp Met Leu Lys Phe Ala Glu Ala Cys Asp Ile Pro  
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Ala Ala Arg Val Thr Lys Val Ser Asp Leu Arg Ala Ala Ile Gln Thr  
565 570 575

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Sequence listing.ST25.txt

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35 40 45

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115 120 125

Asp Ser Val Pro Leu Val Ala Ile Thr Gly Gln Val Pro Arg Arg Met  
130 135 140

Ile Gly Thr Asp Ala Phe Gln Glu Thr Pro Ile Val Glu Val Thr Arg  
145 150 155 160

Ser Ile Thr Lys His Asn Tyr Leu Val Leu Asp Val Glu Asp Ile Pro  
165 170 175

Arg Ile Val Lys Glu Ala Phe Phe Leu Ala Asn Ser Gly Arg Pro Gly  
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Page 9

Sequence listing.ST25.txt  
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Pro Lys Pro Thr Tyr Ser Ala Asn Glu Glu Gly Leu Leu Asp Gln Ile  
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Val Arg Leu Val Gly Glu Ser Lys Arg Pro Val Leu Tyr Thr Gly Gly  
245 250 255  
  
Gly Cys Leu Asn Ser Ser Glu Glu Leu Arg Lys Phe Val Glu Leu Thr  
260 265 270  
  
Gly Ile Pro Val Ala Ser Thr Leu Met Gly Leu Gly Ala Phe Pro Cys  
275 280 285  
  
Thr Asp Asp Leu Ser Leu His Met Leu Gly Met His Gly Thr Val Tyr  
290 295 300  
  
Ala Asn Tyr Ala Val Asp Lys Ala Asp Leu Leu Leu Ala Phe Gly Val  
305 310 315 320  
  
Arg Phe Asp Glu Arg Val Thr Gly Lys Leu Glu Ala Phe Ala Ser Arg  
325 330 335  
  
Ala Lys Ile Val His Ile Asp Ile Asp Ser Ala Glu Ile Gly Lys Asn  
340 345 350  
  
Lys Gln Pro His Val Ser Ile Cys Gly Asp Val Lys Val Ala Leu Gln  
355 360 365  
  
Gly Leu Asn Lys Ile Leu Glu Ser Arg Lys Gly Lys Val Lys Leu Asp  
370 375 380  
  
Phe Ser Asn Trp Arg Glu Glu Leu Asn Glu Gln Lys Lys Lys Phe Pro  
385 390 395 400  
  
Leu Ser Phe Lys Thr Phe Gly Asp Ala Ile Pro Pro Gln Tyr Ala Ile  
405 410 415  
  
Gln Val Leu Asp Glu Leu Thr Lys Gly Asp Ala Val Val Ser Thr Gly  
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Val Gly Gln His Gln Met Trp Ala Ala Gln Phe Tyr Lys Tyr Arg Asn  
435 440 445

Sequence listing.ST25.txt

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val Asp Ile Asp Gly Asp Gly Ser Phe Ile Met Asn Val Gln Glu Leu  
Ala Thr Ile Arg Val Glu Asn Leu Pro Val Lys Ile Met Leu Leu Asn  
Asn Gln His Leu Gly Met Val Val Gln Trp Glu Asp Arg Phe Tyr Lys  
Ala Asn Arg Ala His Thr Tyr Leu Gly Asn Pro Ser Asn Ser Ser Glu  
Ile Phe Pro Asp Met Leu Lys Phe Ala Glu Ala Cys Asp Ile Pro Ala  
Ala Arg Val Thr Lys Val Ser Asp Leu Arg Ala Ala Ile Gln Thr Met  
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20 25 30  
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35 40 45

Sequence listing.ST25.txt

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Gly Tyr Ala Arg Ala Thr Gly Arg Val Gly Val Cys Ile Ala Thr Ser  
100 105 110

Gly Pro Gly Ala Thr Asn Leu Val Ser Gly Leu Ala Asp Ala Leu Asp  
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Asp Ser Val Pro Leu Val Ala Ile Thr Gly Gln Val Pro Arg Arg Met  
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Ile Gly Thr Asp Ala Phe Gln Glu Thr Pro Ile Val Glu Val Thr Arg  
145 150 155 160

Ser Ile Thr Lys His Asn Tyr Leu Val Leu Asp Val Glu Asp Ile Pro  
165 170 175

Arg Ile Val Lys Glu Ala Phe Phe Leu Ala Asn Ser Gly Arg Pro Gly  
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Pro Val Leu Ile Asp Ile Pro Lys Asp Ile Gln Gln Gln Leu Val Val  
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Pro Lys Pro Thr Tyr Ser Ala Asn Glu Glu Gly Leu Leu Asp Gln Ile  
225 230 235 240

Val Arg Leu Val Gly Glu Ser Lys Arg Pro Val Leu Tyr Thr Gly Gly  
245 250 255

Gly Cys Leu Asn Ser Ser Glu Glu Leu Arg Lys Phe Val Glu Leu Thr  
260 265 270

Gly Ile Pro Val Ala Ser Thr Leu Met Gly Leu Gly Ala Phe Pro Cys  
275 280 285

Thr Asp Asp Leu Ser Leu His Met Leu Gly Met His Gly Thr Val Tyr  
290 295 300

Sequence listing.ST25.txt

Ala Asn Tyr Ala Val Asp Lys Ala Asp Leu Leu Leu Ala Phe Gly Val  
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Arg Phe Asp Asp Arg Val Thr Gly Lys Leu Glu Ala Phe Ala Ser Arg  
325 330 335

Ala Lys Ile Val His Ile Asp Ile Asp Ser Ala Glu Ile Gly Lys Asn  
340 345 350

Lys Gln Pro His Val Ser Ile Cys Gly Asp Val Lys Val Ala Leu Gln  
355 360 365

Gly Leu Asn Lys Ile Leu Glu Ser Arg Lys Gly Lys Val Lys Leu Asp  
370 375 380

Phe Ser Asn Trp Arg Glu Glu Leu Asn Glu Gln Lys Lys Lys Phe Pro  
385 390 395 400

Leu Ser Phe Lys Thr Phe Gly Asp Ala Ile Pro Pro Gln Tyr Ala Ile  
405 410 415

Gln Val Leu Asp Glu Leu Thr Lys Gly Asp Ala Val Val Ser Thr Gly  
420 425 430

Val Gly Gln His Gln Met Trp Ala Ala Gln Phe Tyr Lys Tyr Arg Asn  
435 440 445

Pro Arg Gln Trp Leu Thr Ser Gly Gly Leu Gly Ala Met Gly Phe Gly  
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465 470 475 480

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485 490 495

Ala Thr Ile Arg Val Glu Asn Leu Pro Val Lys Ile Met Leu Leu Asn  
500 505 510

Asn Gln His Leu Gly Met Val Val Gln Trp Glu Asp Arg Phe Tyr Lys  
515 520 525

Ala Asn Arg Ala His Thr Tyr Leu Gly Asn Pro Ser Asn Ser Ser Glu  
530 535 540

Ile Phe Pro Asp Met Leu Lys Phe Ala Glu Ala Cys Asp Ile Pro Ala  
545 550 555 560

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Ala Arg Val Thr Lys Val Ser Asp Leu Arg Ala Ala Ile Gln Thr Met  
565 570 575

Leu Asp Thr Pro Gly Pro Tyr Leu Leu Asp Val Ile Val Pro His Gln  
580 585 590

Glu His Val Leu Pro Met Ile Pro Ser Gly Ala Ala Phe Lys Asp Thr  
595 600 605

Ile Thr Glu Gly Asp Gly Arg Arg Ala Tyr  
610 615